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states:(71) Applicant: **TOYOTA MOTOR CORP**(72) Inventor: **FUKUDA TOKUHITO**  
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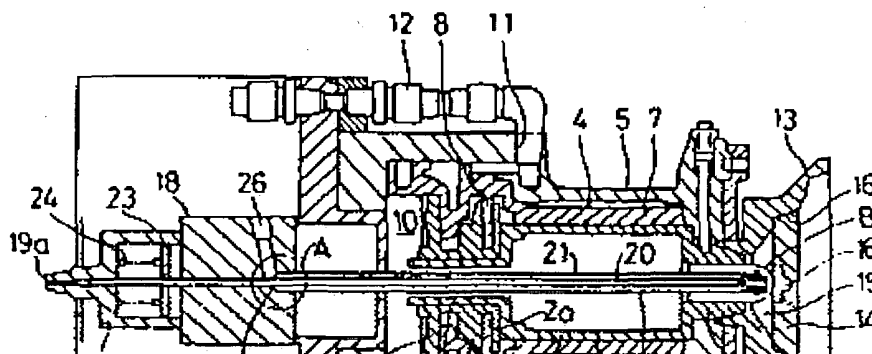
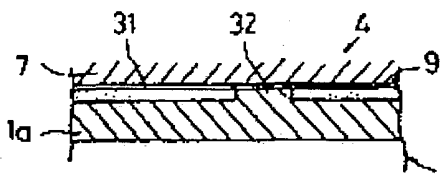
(74) Representative:

**(54) ROTARY ATOMIZING  
ELECTROSTATIC  
PAINTING MACHINE**

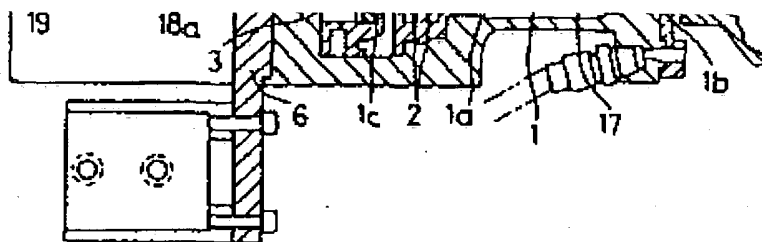
(57) Abstract:

**PURPOSE:** To employ a center feed system and to achieve the simplification of a structure and the enhancement of operability by applying voltage to a rotary shaft through a housing by exposing a conductive member to the air layer of an air bearing.

**CONSTITUTION:** A hollow rotary shaft 1 having an atomizing head 13 mounted to the leading end thereof is supported in a housing 5 through an air bearing 4 and a non-conductive hard film 31 is provided to either one of the outer peripheral surface of the rotary shaft 1 and the bearing surface of the air bearing 4. A paint supply pipe 17 is coaxially arranged in the rotary shaft 1 and the paint emitted from the leading end of the paint supply pipe 17 is guided from the



interior of the atomizing head 15 to the front surface thereof to be atomized by centrifugal force. A part of the hard film 31 is notched and a conductive member 32 extended from a base material is arranged at the notched part. As a result, voltage can be applied to the rotary shaft through the housing and a center feed system can be employed and the simplification of a structure and the enhancement of operability can be achieved.



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